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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,472

01/19/2006

Stephane Dufosse

979-198

9895

7590

09/26/2007

Sofer & Haroun
317 Madison Avenue
Suite 910
New York, NY 10017

EXAMINER

MCNALLY, KERRI L

ART UNIT

PAPER NUMBER

2612

MAIL DATE

DELIVERY MODE

09/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,472

Applicant(s)

DUFOSSE ET AL.

Examiner

Kerri L. McNally

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/19/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20060119
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. **Claim 6** is objected to because of the following informalities: Examiner believes that "sound-reproducing transistor" should be replaced with "sound-reproducing transducer" and for examination purposes will treat it as such. Appropriate correction is required.
2. **Claim 6** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, Claim 6 recites the same limitation of "said cylindrical wall of the transducer includes at least one perforation" as in claim 1.
3. **Claim 7** is objected to because of the following informalities: Claim 7 recites the same limitation of "said circular face of the transducer includes at least one perforation" as in claim 3. Because of the improper dependent claim 6 as discussed above, Claim 7 is essentially the same as claim 3. Examiner recommends canceling claim 7. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 1, 2, 3, 6, and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,385,328 (Yoo et al.) in view of US Patent Application Publication No. 2002/0101333 (Lu).

Regarding claim 1, Yoo teaches a hollow-cylindrical shaped acoustic transducer that functions as a buzzer, a receiver, and a micro-speaker (Column 3, lines 20-21) for a portable electronic device wherein the transducer is connected to a magnetic circuit and has a top face and a bottom face that are parallel (Fig. 1a; Fig. 1b; Fig. 2; Fig. 15a). In addition, the transducer comprises a circular vibration plate that is parallel to the faces of the transducer (diaphragm) for converting electrical signals into sound waves (Fig.

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15a). Yoo also teaches that a diaphragm separates the transducer into two distinct cavities (Fig. 1a). Yoo teaches a plurality of vent holes disposed in the bottom of the frame of the transducer to perform smooth vibrations of the diaphragm (Column 7, lines 8-11). Yoo does not expressly teach a perforation or hole on the cylindrical wall of the transducer.

Lu teaches a siren wherein air vents on the sidewall draw in air and sound is generated by the impact between air and each block in the acoustic actuator (Paragraph [0006]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include air vents on the side wall of the housing to let air into the chamber and interact with the diaphragm to create smoother vibrations of the diaphragm.

Regarding claim 2, Yoo teaches a transducer as discussed above that has vent holes disposed in the bottom of the frame to perform smooth vibrations of the diaphragm. Examiner considers the bottom of the frame to include the rear acoustic cavity. Yoo does not expressly teach a hole in the cylindrical wall of the transducer.

Lu teaches a siren wherein air vents on the sidewall draw in air and sound is generated by the impact between air and each block in the acoustic actuator (Paragraph [0006]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include air vents on the side wall of the housing to let air into the chamber

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and interact with the diaphragm in the bottom or rear cavity to create smoother vibrations of the diaphragm.

Regarding claims 3 and 7, see above discussion for Yoo pertaining to the holes in the bottom of the frame.

Regarding claim 6, see above discussion in claim 1.

Allowable Subject Matter

7. **Claims 4 and 5** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US Patent No. 4,504,703 (Schneiter et al.), US Patent No. 4,443,667 (Hunt), US Patent No. 7,194,284 (Usuki et al.), US Patent No. 4,376,233 (Kamon et al.), and US Patent No. 6,810,128 (Kaneda et al.).

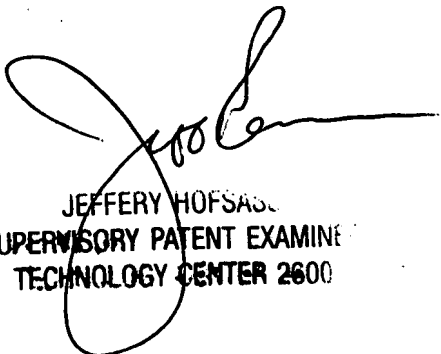
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri L. McNally whose telephone number is 571-270-1840. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KLM



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